

MACROECONOMICS

Semester 2, 2016

ECF1200

PREVIEW

Week 4: Chapter 8 - Saving, investment and the financial system

The financial system

- Groups of institutions that help to match one person's saving with another person's investment

Financial institutions in the Australian economy

Financial markets

- Savers can directly provide funds to borrowers
- Two important markets are the bond market and the stock market

The bond market

- a *bond* is a certificate of indebtedness that specifies obligations of the borrower to the holder of the bond
- Term: the length of time until maturity
- Credit risk: the probability that the borrower will fail to pay some of the interest or principal
- Tax treatment: the way in which the tax laws treat the interest on the bond

The stock market

- a share is a claim to partial ownership in a firm
- the sale of stock to raise money is called *equity financing*
- compared with bonds, shares offer both higher risk and potentially higher returns

Financial intermediaries

- Savers can indirectly provide funds to borrowers
- Two important intermediaries are *banks* and *managed funds*
- *Financial intermediaries* are financial institutions through which savers can indirectly provide funds to borrowers
 - banks take deposits from people who want to save and then use the deposits to make loans to people who want to borrow
 - a managed fund is an institution that sells shares to the public and uses the proceeds to buy a selection, or portfolio, of various types of shares, bonds, or both

Important identities

- Remember GDP calculation
 $Y = C + I + G + NX$
- Assuming a closed economy (one that does not engage in international trade)
 $Y = C + I + G$
- Now subtract C and G from both sides of the equation
 $Y - C - G = I$
The left side of this equation equals the total income in the economy after paying for consumption and government purchases and is called national saving (s)
- Substituting S for $Y - C - G$
 $S = I$
- *National saving*: the total income in the economy that remains after paying for consumption and government purchases
- *Private saving*: the amount of income that *households* have left after paying their taxes and consumption ($= Y - T - C$)
- *Public saving*: the amount of tax revenue that the *government* has left after paying for its spending ($= T - G$)

Surplus and deficit

- If $T > G$, the government runs a *budget surplus* because it receives more money than it spends
- The surplus of $T - G$ represents *public saving*
- If $G > T$, the government runs a *budget deficit* because it spends more money than it receives in tax revenue
- For the economy as a whole, saving must be equal to investment ($S = I$)

The market for loanable funds

- Financial markets coordinate the economy's saving and investment in the *market for loanable funds*
- It is the market in which those who want to save supply funds and those who want to borrow to invest demand funds

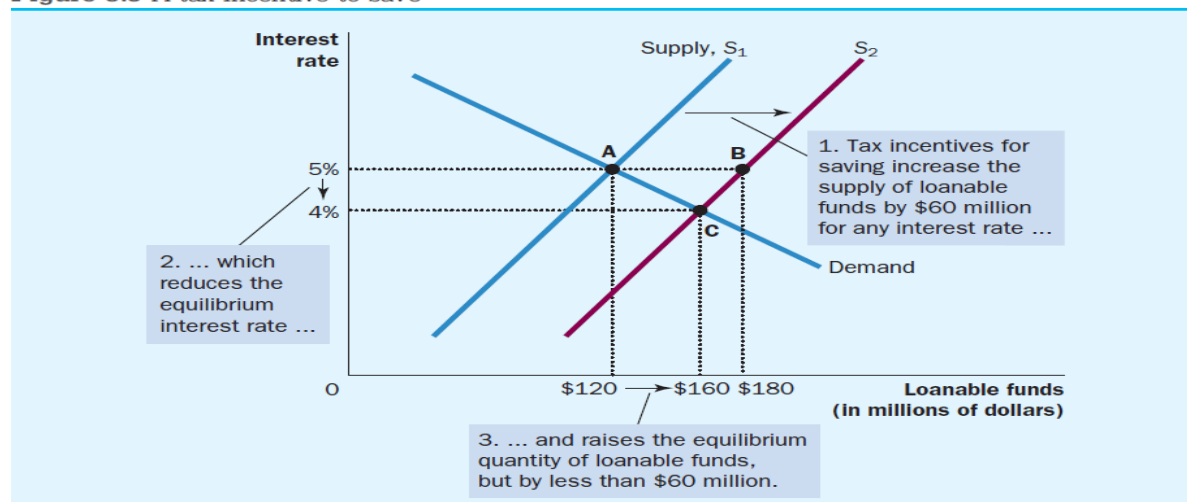
Supply and demand for loanable funds

- The supply of loanable funds comes from people who have extra income they want to save and lend out
- The demand for loanable funds comes from households and firms that wish to borrow to make investments
- The interest rate is the price of the loan
- It represents the amount that borrowers pay for loans and the amount that lenders receive on their saving
- The interest rate in the market for loanable funds is the *real interest rate*
- The equilibrium of the supply and demand for loanable funds determines the *real interest rate*
- Government policies that affect saving and investment
 - taxes and saving
 - taxes and investment
 - government budgets: deficit or surplus

Policy 1: Taxes and saving

- Taxes on interest income substantially reduces the future pay-off from current saving and, as a result, reduce the incentive to save
- A tax decrease increases the incentive for households to save at any given interest rate
 - supply of loanable funds curve shifts to the right
 - equilibrium interest rate decreases
 - quantity demanded for loanable funds increases

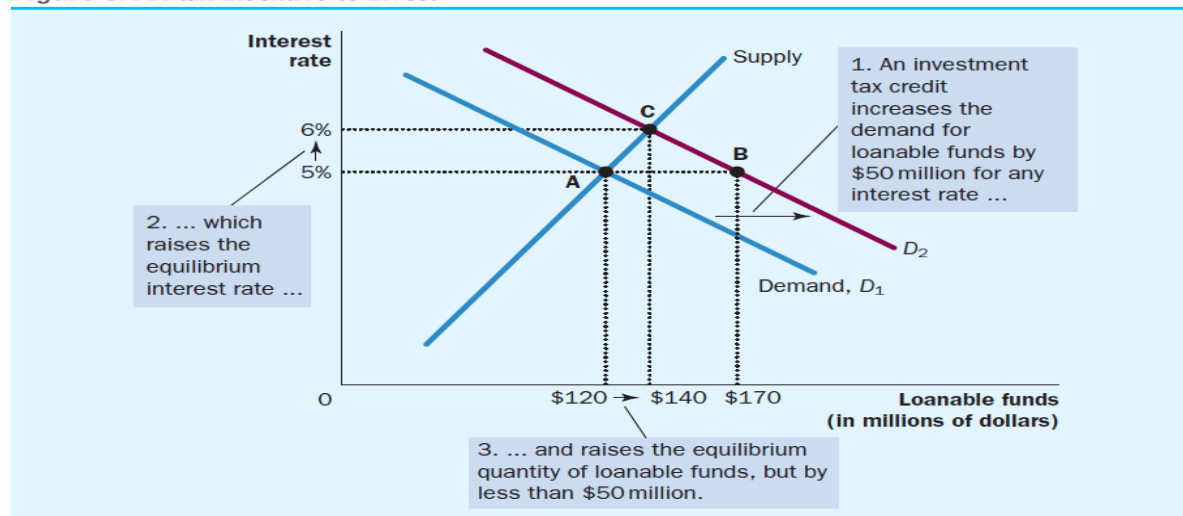
Figure 8.3 A tax incentive to save



Policy 2: Taxes and investment

- An investment tax credit increases the incentive to borrow
 - increases the demand for loanable funds
 - shifts the demand curve to the right
 - results in a higher interest rate and a greater quantity saved
- If a change in tax laws encourages greater investment, the result will be higher interest rates and greater saving

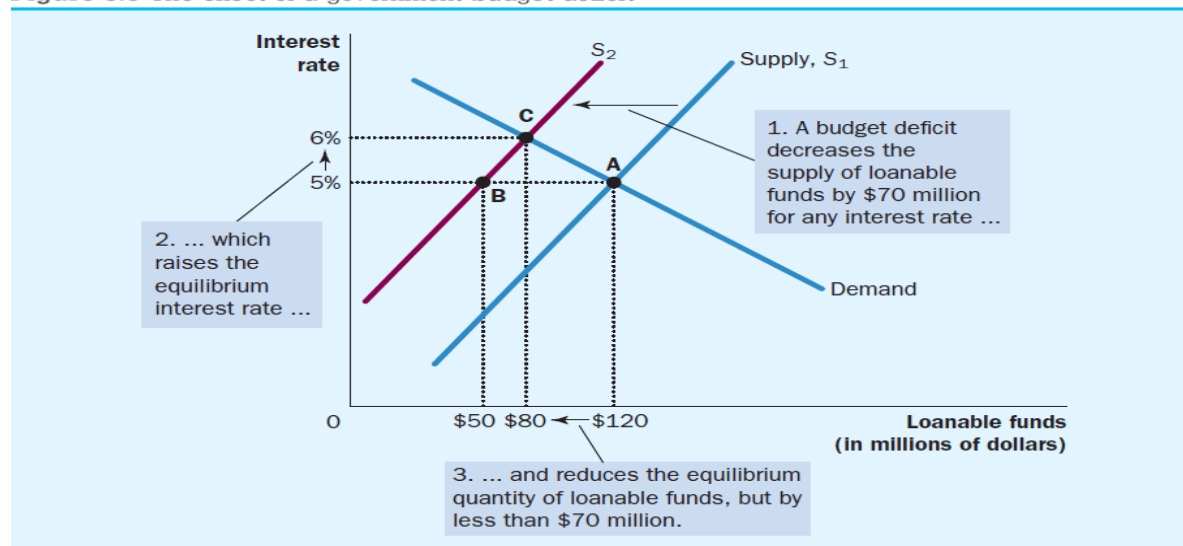
Figure 8.4 A tax incentive to invest



Policy 3: Government Budgets – surplus or deficit

- When the government spends more than it receives in tax revenue, the shortfall is called the budget deficit
- The accumulation of past budget deficits is called the government debt
- Government borrowing to finance its budget deficit reduces the supply of loanable funds available to finance investment by households and firms
- This fall in investment is referred to as crowding out
 - the deficit borrowing crowds out private borrowers who are trying to finance investments
- A budget deficit decreases the supply of loanable funds
 - it shifts the supply curve to the left
 - it increases the equilibrium interest rate
 - it reduces the equilibrium quantity of loanable funds

Figure 8.5 The effect of a government budget deficit



- When government reduces national saving by running a deficit, the interest rate rises and investment falls
- A budget surplus increases the supply of loanable funds, reduces the interest rate and stimulates investment

Questions

Investment increases the incentive to borrow.

= purchase of new capital that will be used in the production of new services in the economy (equipment, machinery)

Government budget surplus

- Supply shifts to the right, increases the supply of loanable funds, reduces the interest rate and stimulates investment, increases economic growth
- “When tax is greater than government purchases” – $T < G$ (Tax < Gov. Purch.)

Government budget deficit

- Decreases the supply of loanable funds, increases the equilibrium interest rate, reduces the equilibrium quantity of loanable fund, decreases economic growth

Expected to pay higher interest rates?

a) Bond Australian vs African Gov

- African Gov. Compensation on the risk

b) Bond in 2020 vs 2030

- 2030: term of maturity, adjusts for interest rate, banks can fluctuate

c) Bond from Coles vs Software company run by friend

- Software company: higher credit risk

d) Bond issued by federal government vs issued to finance construction of new airport

- Airport: federal government bonds are the safest in the world (lowest interest rates)

Which situations represent investment

a) Family takes out mortgage to buy a new house (purchase of new capital e.g. house is an exception)

b) Use \$200 pay cheque to buy shares in Boral (shares are not used in the production of new goods and services)

c) Flat mate earns \$100 and deposits in bank account (interpreted as savings, not investment)

d) Borrow \$1000 from a bank to buy a car to use in your pizza delivery business (if brought for yourself it is seen as a consumption good, but because used for business it is an investment)

Critical thinking

Decrease in budget deficit results in more private saving to be utilized for more public household investment

Supply curve shifts to the right, demand curve unchanged

Quality of investment increases

- National demand affects public saving (both increasing) = $\text{Supply}_1 = \text{NS} = \text{Priv. Sav.} + \text{Public Sav.}$
- Supply curve shifts to the right (surplus of loanable funds) due to more supply of funds in the market
- Decrease interest rate
- Private saving decreases
- Private saving falls due to the market's reaction on public saving
- $\text{Supply}_1 = \text{NS (increase)} = \text{Priv. Sav. (decrease)} + \text{Public Sav. (increase)}$

Week 5: Chapter 9 - The natural rate of unemployment

How is unemployment measured?

- Measured by the Australian Bureau of Statistics (ABS)
- Each adult is placed into one of three categories
 - **Employed** (*working at least one hour of the previous week working at a paid job or family business*)
 - **Unemployed** (*person is on temporary layoff, looking for a job, or is waiting for the start date of a new job*)
 - **not in the labour force** (*full time student, homemaker or retiree*)

Important terms

- Labour force: sum of the employed and the unemployed
- Unemployment rate: calculated as the percentage of the labour force that is unemployed
- Labour force participation rate: percentage of the adult population that is in the labour force

Identifying unemployment

- The problem of unemployment is usually divided into two categories:
 - the long-run problem is that '*natural rate of unemployment*' (unemployment that does not go away on its own, even in the long run)
 - the short-run problem is the '*cyclical rate of unemployment*' (year to year fluctuations in unemployment around its natural rate)

Is unemployment measured correctly?

- Discouraged workers, people who would like to work but have given up looking for jobs after an unsuccessful search, don't show up in unemployment statistics
- Other people may claim to be unemployed in order to receive financial assistance, even when not truly looking for work (dollar bludgers)

Why is there unemployment?

- Frictional unemployment: the unemployment results from the time that it takes to match workers with jobs (finding appropriate jobs given people's tastes and skills)
 - it is inevitable as the economy is always changing (e.g. change in demand in industries, takes time for workers to search for and find jobs in new sectors)
 - because workers differ from one another in terms of their skills and tastes, it is often difficult for workers to match with the appropriate job
 - government programs can aid with the time it takes unemployed workers to find new jobs (e.g. unemployment benefits, public training programs etc.)
- Structural unemployment: the unemployment as a result of a mismatch between the skills that businesses require and the skills that workers have (skills demanded by workers do not match skills of workers)
- Classical unemployment: arises because the real wage in the labour market is above the market clearing level
 - if the minimum wage is set above the level that balances supply and demand, it creates unemployment (surplus labour)

The Theory of Efficiency Wages

- Efficiency wages: above equilibrium wages paid by firms in order to increase worker productivity
- 4 types of efficiency wage theory are:
 - worker health
 - worker turnover
 - worker effect/effort
 - worker quality

Questions

1. Explain four ways in which a firm might increase its profits by raising the wages it pays

- Workers are more satisfied with their wage level and thus are more motivated to work (increasing *quality*)
- Workers strive to work harder (increased *work effort*)
- Less workers choosing to leave the firm (decreased *turnover*)
- Workers are able to live happy and healthy (increased *health*)

Increase in the minimum wage

